

CLAIMS

What is claimed is:

1. A valve assembly comprising:

a valve housing having an inlet and an outlet;

a valve member located within said valve housing and rotatably positionable through 90 degrees between a closed position and an open position to selectively enable fluid communication from said inlet to said outlet, said valve member including a first valve element and a second valve element rotatably positionable with respect to said first valve element, said first valve element having a first passageway formed therein which aligns with a second passageway formed in said second valve element when said valve member is in said open position, said second valve element blocking said first passageway when said valve member is in said closed position; and

a check valve located in said valve housing between said inlet and said valve member to selectively disable fluid communication from said outlet to said inlet.

2. The valve assembly of claim 1 wherein said first valve element includes a first disc fixed within said valve housing and said second valve element includes a second disc rotatably positionable relative to said first disc within said valve housing.

3. The valve assembly according to claim 2, wherein said first disc and said second disc are comprised of a ceramic material.

4. The valve assembly according to claim 2, wherein said second disc is butterfly-shaped and includes a flange disposed adjacent said second passageway.

5. The valve assembly according to claim 1, further comprising an armature engaged with said second valve element for rotatably positioning said second valve element.

6. The valve assembly according to claim 1 wherein said check valve further comprises a plunger having a seal formed thereon, said plunger being slidably positionable within said valve housing between a first position disabling fluid communication between said outlet and said inlet and a second position enabling fluid communication between said inlet and said outlet.

7. A $\frac{1}{4}$ turn valve assembly comprising:

a housing including a seat member having an inlet and a shell member having an outlet;

a valve member disposed within said housing between said inlet and said outlet, said valve member including a first disc having a through-hole and mounted to said shell member and a second disc having a passageway,

said second disc being rotatably positionable through 90 degrees between a closed position wherein said second disc blocks said through-hole and an open position wherein said passageway aligns with said through-hole, thereby selective enabling fluid communication from said inlet to said outlet; and

a check valve disposed within said housing between said inlet and said valve member, said check valve having a valve element positionable to engage said seat member to block said inlet.

8. The $\frac{1}{4}$ turn valve assembly according to claim 7, further comprising an armature coupled with said second disc to rotate said second disc relative to said first disc.

9. The $\frac{1}{4}$ turn valve assembly according to claim 7, wherein said second disc and said first disc are comprised of a ceramic material.

10. The $\frac{1}{4}$ valve assembly according to claim 7, wherein said check valve further comprises a plunger having a seal formed thereon, said plunger being slidably positionable within said valve housing between a first position disabling fluid communication between said outlet and said inlet and a second position enabling fluid communication between said inlet and said outlet.

11. A frost-free faucet comprising:

a spigot disposed at a first end of an elongated pipe;

a valve assembly disposed at a second end of said elongated pipe, said valve assembly including a valve member located within a housing and rotatably positionable through 90 degrees between a closed position and an open position to selective enable fluid communication from an inlet to an outlet, said valve member including a first valve element and a second valve element rotatably positionable with respect to said first valve element, said first valve element having a first passageway formed therein which aligns with a second passageway formed in said second valve element when said valve member is in said open position, said second valve element blocking said first passageway when said valve member is in said closed position, and a check valve located in said valve housing between said inlet and said valve member to selectively disable fluid communication from said outlet to said inlet; and

an operator including a handle disposed adjacent said spigot and a valve stem extending between said handle and said valve member such that said valve member is rotatably positionable by said operator.

12. The frost free faucet of claim 11, wherein said first valve element includes a first disc fixed within said valve housing and said second valve element includes a second disc rotatably positionable relative to said first disc within said valve housing.

13. The frost free faucet according to claim 12, wherein said valve assembly further includes a armature engaged with said valve assembly to rotate said second disc relative to said first disc.

14. The frost free faucet according to claim 13, wherein said second disc has a recess formed therein which receives a prong of said armature to rotably couple said armature and said second disc.

15. The frost free faucet according to claim 13, wherein said armature is engaged with a valve stem, said valve stem driven by a handle.

16. The frost free faucet according to claim 12, wherein said housing includes a stop member to prevent said second disc from rotating greater than 90 degrees.

17. The frost free faucet according to claim 12, wherein said second disc is butterfly-shaped and said first disc is round.

18. The frost free faucet according to claim 11, wherein said check valve further comprises a plunger having a seal formed thereon, said plunger being slidably positionable within said housing between a first position disabling fluid communication between said outlet and said inlet and a second position enabling fluid communication between said inlet and said outlet.

19. The frost free faucet according to claim 18, wherein said check valve further comprises a spring for allowing said plunger to move between said first position disabling fluid communication between said outlet and said inlet and said second position enabling fluid communication between said inlet and said outlet.